

1. $\lim_{x \rightarrow 0} \frac{3x}{\sqrt{5-x} - \sqrt{5+x}}$
2. $\lim_{x \rightarrow \infty} \frac{5x^3 - 3x^2 + 7}{2x^4 + 3x^2 + 1}$
3. $\lim_{x \rightarrow 0} \frac{\cos^2 x - \cos^2 2x}{x^2}$
4. $\lim_{x \rightarrow x_0} \frac{7x^2 + 4x - 3}{2x^2 + 3x + 1}, \quad x_0 = \infty \quad x_0 = -1$
5. $\lim_{x \rightarrow \infty} \left(\frac{2x-1}{2x+4} \right)^{3x}$
6. $\lim_{x \rightarrow 0} \frac{1 - \cos 4x}{x \cdot \sin x}$